

ABSTRACT OF THE DISCLOSURE

A bidirectional check valve controls movement of fluid. A valve body has an opening, a further opening and a passage connecting the opening and the further opening. A poppet is disposed within the passage of the valve body, and a spring is coupled to the poppet. A further poppet is disposed within the passage formed in the first mentioned poppet, and a further spring is coupled to the poppet and to the further poppet. When fluid passing through the opening in the valve body exerts a force on the poppet that is greater than the spring force, the further portion of the outer surface of the poppet is directed away from the further portion of the wall of the passage and permits the fluid to flow from the opening in the valve body through a channel and to the further opening in the valve body. When fluid passing through the further opening in the valve body exerts a force on the further poppet that is greater than the further spring force, the further portion of the outer surface of the further poppet is directed away from the further opening in the valve body to open a further channel in the poppet and permit the fluid to flow from the further opening in the valve body through the further channel, at least one opening in the further poppet, a further passage in the further poppet, a further opening in the further poppet and an opening in the poppet to the opening of the valve body.